WHAT IS CLAIMED IS:

1. An apparatus for attenuating the optical output of an optoelectronic connector, the apparatus comprising:

a) a mounting surface;

b) an array of optoelectronic devices adapted to the mounting surface, the optoelectronic devices having at least a first end;

c) an array of optical elements, the array of optical elements having at least a first and a second end;

d) the first end of the array of optical elements positioned relative to the first end of the array of optoelectronic devices in such a manner that one or more optical elements is optically aligned to one or more optoelectronic devices;

e) an optical path extending from the first end of the array of optoelectronic devices, proceeding into the array of optical elements and terminating at the second end of the array of optical elements; and

f) an attenuator in the optical path, where the attenuator is capable of attenuating the optical energy emitted from one or more optoelectronic devices.

2. An apparatus as in claim 1, wherein the attenuator comprises an attenuating coating on the first end of the array of optoelectronic devices,

3. An apparatus as in claim 1, wherein the attenuator comprises an attenuating coating on the first end of the array of optical elements.

4. An apparatus as in claim 1, wherein the attenuator comprises an attenuating coating on the second end of the array of optical elements.

5. An apparatus as in claim 1, wherein the attenuator comprises an attenuating coating on a surface of the optical elements.

6. An apparatus as in claim 1, wherein the attenuator is capable of reflecting optical energy.

7. An apparatus as in claim 1, wherein the attenuator is capable of scattering optical energy.

8. An apparatus as in claim 1, wherein the attenuator is capable of absorbing optical energy.

9. An apparatus as in claim 1, wherein the attenuator comprises a diffractive lens positioned at an interstitial space between the first end of the array of optoelectronic devices and the first end of the array of optical elements.

10. An apparatus as in claim 1, wherein the optical element is an optical fiber.

11. An apparatus as in claim 10, wherein the attenuator comprises utilizing smoked glass in at least a portion of the optical fiber.

12. An apparatus as in claim 10, wherein the attenuator comprises utilizing frosted-glass in at least a portion of the optical fiber.

13. An apparatus as in claim 10, wherein the attenuator comprises utilizing wavy-glass in at least a portion of the optical fiber.

14. An apparatus as in claim 10, wherein the attenuator comprises utilizing roughened inner surfaces in at least a portion of the optical fiber.

15. An apparatus as in claim 10, wherein the attenuator comprises utilizing bubbles formed on an inner surface of at least a portion of the optical fiber.

16. An apparatus as in claim 1, wherein the optoelectronic devices comprise vertical cavity surface emitting lasers.

17. An apparatus as in claim 16, wherein the vertical cavity surface emitting lasers comprise oxide vertical cavity surface emitting lasers.

18. An apparatus as in claim 1, wherein the optical elements are optical fibers.

19. An apparatus as in claim 1, wherein the optical elements are lenses.

20. An apparatus as in claim 1, wherein the array of optical elements is a lenslet array.

21. An apparatus as in claim 1, wherein the optical elements are diffractive optical elements.

22. An apparatus as in claim 1, wherein the optical elements are filters.

23. An apparatus as in claim 1, wherein the optical elements are packaged in a ferrule.

24. An apparatus for conditioning the optical output of an optoelectronic connector, the apparatus comprising:

a) a mounting surface;

b) an array of optoelectronic devices adapted to the mounting surface, the optoelectronic devices having at least a first end;

c) an array of optical elements, the array of optical elements having at least a first and a second end;

d) the first end of the array of optical elements positioned relative to the first end of the array of optoelectronic devices in such a manner that one or more optical elements is optically aligned to one or more optoelectronic devices;

e) an optical path extending from the first end of the array of optoelectronic devices, proceeding into the array of optical elements and terminating at the second end of the array of optical elements; and

f) a conditioner in the optical path, where the conditioner is capable of conditioning the launch of the optical energy into the optical elements by conditioning the optical energy emitted from the array of optoelectronic devices.

25. An apparatus as in claim 24, wherein the conditioner is capable of changing the phase distribution of the optical energy that is emitted by the optoelectronic devices.

26. An apparatus as in claim 24, wherein the conditioner is capable of changing the distribution of power that is emitted by the optoelectronic devices.

27. An apparatus as in claim 24, wherein the conditioner comprises a coating on the first end of the array of optoelectronic devices.

28. An apparatus as in claim 24, wherein the conditioner comprises a coating on the first end of the array of optical elements.

29. An apparatus as in claim 24, wherein the conditioner comprises a coating on the second end of the array of optical elements.

30. An apparatus as in claim 24, wherein the conditioner comprises a coating on an inner surface of the optical elements.

31. An apparatus as in claim 24, wherein the conditioner comprises a diffractive lens positioned at an interstitial space between the first end of the array of optoelectronic devices and the first end of the array of optical elements.

32. An apparatus as in claim 24, wherein the optical element is an optical fiber.

33. An apparatus as in claim 32, wherein the attenuator comprises utilizing smoked glass in at least a portion of the optical fiber.

34. An apparatus as in claim 32, wherein the attenuator comprises utilizing frosted-glass in at least a portion of the optical fiber.

35. An apparatus as in claim 32, wherein the attenuator comprises utilizing wavy-glass in at least a portion of the optical fiber.

36. An apparatus as in claim 32, wherein the attenuator comprises utilizing roughened inner surfaces in at least a portion of the optical fiber.

37. An apparatus as in claim 32, wherein the attenuator comprises utilizing bubbles formed on an inner surface of at least a portion of the optical fiber.

38. An apparatus as in claim 24, wherein the optoelectronic devices comprise vertical cavity surface emitting lasers.

39. An apparatus as in claim 38, wherein the vertical cavity surface emitting lasers comprise oxide vertical cavity surface emitting lasers.

40. An apparatus as in claim 24, wherein the optoelectronic devices comprise photodetectors.

41. An apparatus as in claim 24, wherein the optical elements are optical fibers.

42. An apparatus as in claim 24, wherein the optical elements are lenses.

43. An apparatus as in claim 24, wherein the array of optical elements are a lenslet array.

44. An apparatus as in claim 24, wherein the optical elements are diffractive optical elements.

45. An apparatus as in claim 24, wherein the optical elements are filters.

46. An apparatus as in claim 24, wherein the optical elements are packaged in a ferrule.

47. A method for attenuating the optical output of an array of optoelectronic devices, comprising the steps of:

a) maintaining optical alignment between an array of optical elements and an array of optoelectronic devices;

b) establishing an attenuator in an optical path between the array of optoelectronic devices and the optical elements;

c) generating an optical signal from the array of optoelectronic devices;

d) passing the optical signal to the attenuator;

e) attenuating the optical signal; and

f) passing the attenuated optical signal to the array of optical elements.

48. A method as in claim 47, wherein attenuating the optical signal comprises the step of coating a first end of at least one optoelectronic device with an attenuating material.

49. A method as in claim 47, wherein attenuating the optical signal comprises the step of coating a first end of at least one optical element with an attenuating material.

50. An method as in claim 47, wherein attenuating the optical signal comprises the step of changing the relative position of a first end of at least one optical element relative to the position of a first end of at least one optoelectronic device so as to attenuate the optical output of at least one optoelectronic device.

51. A method as in claim 47, wherein the array of optoelectronic device comprises an array of vertical cavity surface emitting lasers.

52. An apparatus as in claim 51, wherein the array of vertical cavity surface emitting lasers comprises an array of oxide vertical cavity surface emitting lasers.

53. A method as in claim 47, wherein the array of optoelectronic device comprises an array of photodetectors.

54. A method as in claim 47, wherein the optical elements are optical fibers.

55. An apparatus as in claim 47, wherein the optical elements are lenses.

56. An apparatus as in claim 47, wherein the optical elements are diffractive optical elements.

57. An apparatus as in claim 47, wherein the optical elements are filters.

58. An apparatus as in claim 47, wherein the optical elements are packaged in a ferrule.

59. A method for attenuating the optical output of an array of optical elements, comprising the steps of:

a) maintaining optical alignment between an array of optical elements and an array of optoelectronic devices;

b) transmitting an optical signal from the array of optical elements;

c) passing the optical signal to an attenuator;

d) attenuating the optical signal; and

e) passing the attenuated signal to the array of optoelectronic devices.

60. A method as in claim 59, wherein attenuating the optical signal comprises the step of coating a first end of at least one optical element with an attenuating material.

61. An method as in claim 59, wherein attenuating the optical signal comprises the step of changing the relative position of a first end of at least one optical element relative to the position of a first end of at least one optoelectronic device so as to attenuate the optical output of at least one optoelectronic device.

62. A method as in claim 59, wherein the array of optoelectronic device comprises an array of vertical cavity surface emitting lasers.

63. An apparatus as in claim 62, wherein the array of vertical cavity surface emitting lasers comprises an array of oxide vertical cavity surface emitting lasers.

64. A method as in claim 59, wherein the array of optoelectronic device comprises an array of photodetectors.

65. A method as in claim 59, wherein the optical elements are optical fibers.

66. An apparatus as in claim 59, wherein the optical elements are lenses.

67. An apparatus as in claim 59, wherein the optical elements are diffractive optical elements.

68. An apparatus as in claim 59, wherein the optical elements are filters.

69. An apparatus as in claim 59, wherein the optical elements are packaged in a ferrule.

70. A method for attenuating the optical output of an array of optical elements, comprising the steps of:

a) maintaining optical alignment between at least one optical element and at least one optoelectronic device;

b) transmitting an optical signal from at least one optical element;

c) passing the optical signal to an attenuator;

d) attenuating the optical signal; and

e) passing the attenuated signal to at least one optoelectronic device.

71. A method as in claim 70, wherein attenuating the optical signal comprises the step of coating a first end of at least one optical element with an attenuating material.

72. An method as in claim 70, wherein attenuating the optical signal comprises the step of changing the relative position of a first end of at least one optical element relative to the position of a first end of at least one optoelectronic device so as to attenuate the optical output of at least one optoelectronic device.

73. A method as in claim 70, wherein the optoelectronic device comprises a vertical cavity surface emitting laser.

74. An apparatus as in claim 73, wherein the vertical cavity surface emitting laser comprises an oxide vertical cavity surface emitting laser.

75. A method as in claim 70, wherein the array of optoelectronic device comprises an array of photodetectors.

76. A method as in claim 70, wherein the optical elements are optical fibers.

77. An apparatus as in claim 70, wherein the optical elements are lenses.

78. An apparatus as in claim 70, wherein the optical elements are diffractive optical elements.

79. An apparatus as in claim 70, wherein the optical elements are filters.

80. An apparatus as in claim 70, wherein the optical elements are packaged in a ferrule.